control. If the drug is approved for multiple species at different use levels, the highest approved level of use would govern under this definition. The manufacture of a Type B medicated feed from a Category II, Type A medicated article requires a medicated feed mill license application approved under §515.20 of this chapter.

- (4) A "Type C medicated feed" is intended as the complete feed for the animal or may be fed "top dressed" (added on top of usual ration) on or offered "free-choice" (e.g., supplement) in conjunction with other animal feed. It contains a substantial quantity of nutrients including vitamins, minerals, and/or other nutritional ingredients. It is manufactured by diluting a Type A medicated article or a Type B medicated feed. A Type C medicated feed may be further diluted to produce another Type C medicated feed. The manufacture of a Type C medicated feed from a Category II, Type A medicated article requires a medicated feed mill license application approved under §515.20 of this chapter.
- (5) A Type B or Type C medicated feed manufactured from a drug component (bulk or "drum-run" (dried crude fermentation product)) requires an application approved under §514.105 of this chapter or an index listing granted under §516.151 of this chapter.
- (6) A "veterinary feed directive (VFD) drug" is a new animal drug approved under section 512(b) of the Federal Food, Drug, and Cosmetic Act (the act) or listed in the index under section 572 of the act for use in or on animal feed. Use of a VFD drug must be under the professional supervision of a licensed veterinarian.
- (7) A "veterinary feed directive" is a written statement issued by a licensed veterinarian in the course of the veterinarian's professional practice that orders the use of a VFD drug in or on an animal feed. This written statement authorizes the client (the owner of the animal or animals or other caretaker) to obtain and use the VFD drug in or on an animal feed to treat the client's animals only in accordance with the directions for use approved or indexed by the Food and Drug Administration (FDA). A veterinarian may issue a VFD only if a valid veterinarian-client-pa-

tient relationship exists, as defined in §530.3(i) of this chapter.

- (8) A "medicated feed" means a Type B medicated feed as defined in paragraph (b)(3) of this section or a Type C medicated feed as defined in paragraph (b)(4) of this section.
- (9) For the purposes of this part, a "distributor" means any person who distributes a medicated feed containing a VFD drug to another distributor or to the client-recipient of the VFD.
- (10) An "animal production facility" is a location where animals are raised for any purpose, but does not include the specific location where medicated feed is made.
- (11) An "acknowledgment letter" is a written communication provided to a distributor by a consignee who is not the ultimate user of medicated feed containing a VFD drug. An acknowledgment letter affirms that the consignee will not ship such medicated animal feed to an animal production facility that does not have a VFD, and will not ship such feed to another distributor without receiving a similar written acknowledgment letter.

[51 FR 7392, Mar. 3, 1986, as amended at 52 FR 2682, Jan. 26, 1987; 54 FR 51386, Dec. 15, 1989; 56 FR 19268, Apr. 26, 1991; 64 FR 63206, Nov. 19, 1999; 65 FR 76929, Dec. 8, 2000; 72 FR 69130, Dec. 6, 2007]

# § 558.4 Requirement of a medicated feed mill license.

- (a) A feed manufacturing facility must possess a medicated feed mill license in order to manufacture a Type B or Type C medicated feed from a Category II, Type A medicated article.
- (b) The manufacture of the following types of feed are exempt from the required license, unless otherwise specified:
- (1) Type B or Type C medicated feed using Category I, Type A medicated articles or Category I, Type B or Type C medicated feeds; and
- (2) Type B or Type C medicated feed using Category II, Type B or Type C medicated feeds.
- (c) The use of Type B and Type C medicated feeds shall also conform to the conditions of use provided for in subpart B of this part and in §558.15 of this chapter.

### §558.4

(d) This paragraph identifies each drug by category, the maximum level of drug in Type B medicated feeds, and

the assay limits for the drug in Type A medicated articles and Type B and Type C medicated feeds, as follows:

#### CATEGORY I

		OATEGOTT 1	
Drug	Assay limits percent <sup>1</sup> type A	Type B maximum (200x)	Assay limits percent 1 type B/C 2
Aklomide	90–110	22.75 g/lb (5.0%)	85–120.
Amprolium with Ethopabate	94–114	22.75 g/lb (5.0%)	80–120.
Bacitracin methylene disalicylate	85–115	25.0 g/lb (5.5%)	70–130.
Bacitracin zinc	84–115	5.0 g/lb (1.1%)	70–130.
Bambermycins	90–110	800 g/ton (0.09%)	80–120/70–130.
Buquinolate	90–110	9.8 g/lb (2.2%)	80–120.
Chlortetracycline	85–115	40.0 g/lb (8.8%)	80–115/70–130.
Coumaphos	95–115	6.0 g/lb (1.3%)	80–120.
Decoquinate	90–105	2.72 g/lb (0.6%)	80–120.
Dichlorvos	100–115	33.0 g/lb (7.3%)	90–120/80–130.
Diclazuril	90–110	182 g/t (0.02%)	85–115/70–120.
Efrotomycin	94–113	1.45 g/lb (0.32%)	80–120.
Erythromycin (thiocyanate salt)	85–115	9.25 g/lb (2.04%)	<20g/ton 70–115/150–50:>20g/ton 75–125.
lodinated casein	85–115	20.0 g/lb (4.4%)	75–125.
Laidlomycin propionate potassium	90–110	1 g/lb (0.22%)	90–115/85–115.
Lasalocid	95–115	40.0 g/lb (8.8%)	Type B (cattle and sheep): 80-120; Type
			C (all): 75-125.
Lincomycin	90-115	20.0 g/lb (4.4%)	80–130.
Melengestrol acetate	90-110	10.0 g/ton (0.0011%)	70–120.
Monensin	85–115	40.0 g/lb (8.8%)	Chickens, turkeys, and quail: 75–125; Cattle: 5–10 g/ton 80–120; Cattle: 10– 30 g/ton 85–115; Goats: 20 g/ton 85– 115; Liq. feed: 80–120.
Narasin	90–110	7.2 g/lb (1.6%)	85–115/75–125.
Neguinate	95–112	1.83 g/lb (0.4%)	80–120.
Niclosamide	85–120	225g/lb (49.5%)	80–120.
	85–125		75–125.
Nystatin		5.0 g/lb (1.1%)	
Oleandomycin	85–120	1.125 g/lb (0.25%)	<11.25 g/ton 70–130; >11.25 g/ton 75– 125.
Oxytetracycline	90–120	20.0 g/lb (4.4%)	75–125/65–135.
Penicillin	80–120	10.0 g/lb (2.2%)	65–135.
Poloxalene	90–110	54.48 g/lb (12.0%)	Liq. feed: 85–115.
Ractopamine	85–105	2.46 g/lb (0.54%)	80–110/75–125.
Salinomycin	95–115	6.0 g/lb (1.3%)	80–120.
Semduramicin (as semduramicin sodium).	90–110	2.27 g/lb (0.50%)	80–110
Semduramicin (as semduramicin sodium biomass).	90–110	2.27 g/lb (0.50%)	80–120
Tiamulin	113.4 g/lb,	3.5 g/lb (0.8%)	90–115.
	100-108	- ' '	
	5 and 10 g/		70–130.
	1b, 90–115		
Tylosin	80–120	10.0 g/lb (2.2%)	75–125.
Virginiamycin	85–115	10.0 g/lb (2.2%)	70–130.
Zoalene	92–104	11.35 g/lb (2.5%)	85–115.
	32-104	11.00 g/ib (2.070)	00 110.

#### CATEGORY II

Drug	Assay limits percent <sup>1</sup> Type A	Type B maximum (100x)	Assay limits percent <sup>1</sup> Type B/C <sup>2</sup>		
Amprolium	94–114	11.35 g/lb (2.5%)	80–120.		
Apramycin	88-112	7.5 g/lb (1.65%)	80-120.		
Arsanilate sodium	90-110	4.5 g/lb (1.0%)	85-115/75-125.		
Arsanilic acid	90-110	4.5 g/lb (1.0%)	85-115/75-125.		
Carbadox	90-110	2.5 g/lb (0.55%)	75–125.		
Carbarsone	93-102	17.0 g/lb (3.74%)	85-115.		
Clopidol	94-106	11.4 g/lb (2.5%)	90-115/80-120.		
Famphur	100-110	5.5 g/lb (1.21%)	90-115/80-120.		

Percent of labeled amount.
 Values given represent ranges for either Type B or Type C medicated feeds. For those drugs that have two range limits, the first set is for a Type B medicated feed and the second set is for a Type C medicated feed. These values (ranges) have been assigned in order to provide for the possibility of dilution of a Type B medicated feed with lower assay limits to make Type C medicated feed.

CATEGORY II—Continued

Drug		С	ATEGORY II—Continued	
Florfenicol   90-110   Swine feed: 1/a   Swine feed: 85-115   Catfish feed: 1/a   Salmonid feed: 1/a   Salmonid feed: 80-110   Salmonid feed: 1/a   Salmonid feed: 80-110   Salmonid feed: 1/a   Salmonid feed: 80-110   Salmonid feed: 80-120   Sal	Drug	percent 1	Type B maximum (100x)	Assay limits percent <sup>1</sup> Type B/C <sup>2</sup>
Caffish feed: n/a   Caffish feed: n/a   Salmonid feed: 80-110	Fenbendazole	93-113	8.87 g/lb (1.96%)	75–125
Salmonid feed: n/a   Cattish feed: 80–110	Florfenicol	90-110		Swine feed: 85-115
Haloluginone hydrobromide			Catfish feed: n/a	Catfish feed: 80-110
Halofuginone hydrobromide			Salmonid feed: n/a	Salmonid feed: 80–110
Halofuginone hydrobromide			0.15.1.1.1	0.17.17.1.00.110
Hygomycin B		00 115		
Nemecin				
Levamisole 85-120   113.5 g/lb (25%)   85-125.  Maduramicin ammonium 90-110   545 g/nc (06%)   80-120.  Morantel tartrate 90-110   66.0 g/lb (14.52%)   85-115.  Neomycin 80-120   77.0 g/lb (1.65%)   70-125.  Oxytetracycline 80-120   100 g/lb (2.2%)   65-135.  Neomycin sulfate 80-120   100 g/lb (2.2%)   70-125.  Nicarbazin (granular) 90-110   5675 g/lb (1.25%)   85-11575-125   85-120   85				
Maduramicin ammonium				
Morantel latrate         90-110         86 o Jub (14.52%)         85-115.           Neomycin         80-120         70 Jub (15.54%)         70-125.           Oxytetracycline         80-120         100 Jub (2.2%)         65-135.           Neomycin sulfate         80-120         100 Jub (2.2%)         70-125.           Narasin         90-110         5675 Jub (1.25%)         85-115/75-125           Nicarbazin (granular)         90-110         5675 Jub (1.25%)         85-115/75-125           Nicarbazin (powder)         98-106         5675 Jub (1.25%)         85-115/75-125           Nitarsone         90-110         13.5 g/b (1.25%)         85-115/75-125           Nitromide         90-110         13.5 g/b (2.5%)         80-120           Nitromide         90-110         13.5 g/b (2.5%)         80-120           Novabiocin         85-15         5.65 g/b (1.24%)         75-125           Roxarsone         90-110         22.75 g/b (0.5%)         85-120           Rovariane         90-110         22.75 g/b (0.5%)         85-120           Rovariane         90-110         22.75 g/b (0.5%)         85-120           Rovariane         90-110         22.75 g/b (0.5%)         85-120           Roxarsone         90-110				
Neomycin				
Oxyletracycline         80-120         10.0 g/lb (2.2%)         65-135.           Neomycin sulfate         80-120         10.0 (β) (2.2%)         70-125.           Nicarbazin (granular)         90-110         5.675 g/lb (1.25%)         85-115/75-125           Narasin         90-110         5.675 g/lb (1.25%)         85-115/75-125           Nicarbazin (powder)         98-106         5.675 g/lb (1.25%)         85-115/75-125           Nitarsone         90-110         8.5 g/lb (1.25%)         85-115/80-120           Nitromide         90-110         11.35 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Nitromide         90-110         2.275 g/lb (0.5%)         85-120.           Novobicoin         85-115         15.65 g/lb (1.24%)         75-125.           Novobicoin         85-115         15.7 g/lb (0.5%)         85-120.           Pyrantel tarrate         90-110         36 g/lb (7.9%)         75-125.           Roarsone         90-110         36 g/lb (0.7%)         85-120.           Roxarsone         90-110         2.275 g/lb (0.5%)         85-120.           Roxarsone         90-110         2.275 g/lb (0.5%)         85-120.           Roxarsone <td></td> <td></td> <td></td> <td></td>				
Neomycin sulfate   80-120   100 g/lb (22.0%)   70-125.				
Nicarbazin (granular)				
Nicarbazin (powder)   98-106   6.675 g/lb (1.25%)   85-115/80-120				
Nitarsone   90-110   8.5 g/lb (1.87%)   85-120.  Nitromide   90-110   11.35 g/lb (2.5%)   80-120.  Sulfanitran   85-115   13.6 g/lb (3.0%)   75-125.  Nitromide   90-110   13.5 g/lb (2.5%)   85-115.  Sulfanitran   85-115   5.65 g/lb (1.24%)   75-125.  Noxarsone   90-110   2.275 g/lb (0.5%)   85-120.  Novobiocin   85-115   17.5 g/lb (3.87%)   80-120.  Novobiocin   85-115   17.5 g/lb (3.87%)   80-120.  Novobiocin   90-110   2.275 g/lb (0.6%)   80-120.  Robenidine   95-115   15. g/lb (0.33%)   80-120.  Roxarsone   90-110   2.275 g/lb (0.5%)   85-120.  Sulfadimethoxine   90-110   5.5 g/lb (1.25%)   85-120.  Roxarsone   90-110   3.405 g/lb (0.75%)   85-120.  Ometoprim (5/3)   90-110   3.405 g/lb (0.75%)   85-115.  Sulfametrazine   85-115   18.6 g/lb (4.0%)   85-115.  Sulfametrazine   85-115   18.6 g/lb (4.0%)   85-115.  Sulfametrazine   85-115   10.0 g/lb (2.2%)   85-125/70-130.  Sulfametrazine   85-115   10.0 g/lb (2.2%)   85-120.  Sulfamitran   85-115   10.0 g/lb (2.2%)   85-120.  Sul	Narasin	90-110	5.675 g/lb (1.25%)	85-115/75-125
Nitromide   90-110   11.35 g/lb (2.5%)   80-120.  Sulfanitran   85-15   13.6 g/lb (3.0%)   75-125.  Nitromide   90-110   11.35 g/lb (2.5%)   85-115.  Roxarsone   90-110   2.275 g/lb (0.5%)   85-120.  Novoblocin   85-15   17.5 g/lb (3.85%)   80-120.  Pyrantel tartrate   90-110   36 g/lb (7.9%)   85-125.  Robenidine   85-15   17.5 g/lb (3.85%)   80-120.  Pyrantel tartrate   90-110   36 g/lb (7.9%)   80-120.  Roxarsone   90-110   2.275 g/lb (0.5%)   80-120.  Roxarsone   90-110   2.275 g/lb (0.5%)   85-120.  Clopidol   94-106   11.35 g/lb (2.5%)   85-120.  Clopidol   94-106   85-115   5.0 g/lb (1.1%)   70-130.  Bacitracin methylene disalicy late.  Roxarsone   90-110   2.75 g/lb (0.5%)   85-120.  Sulfadimethoxine   90-110   5.675 g/lb (1.25%)   85-115.  Sulfamethazine   85-115   5.0 g/lb (1.10%)   85-115.  Sulfamethazine   85-115   5.0 g/lb (1.10%)   85-115.  Sulfamethazine   85-115   10.0 g/lb (2.2%)   85-125/70-130.  Sulfamethazine   85-115   10.0 g/lb (2.2%)   85-125/70-130.  Sulfanitran   85-115   10.0 g/lb (2.2%)   85-125/70-130.  Sulfanitran   85-115   10.0 g/lb (2.2%)   85-125.  S	Nicarbazin (powder)	98-106	5.675 g/lb (1.25%)	85-115/80-120
Nitromide   90-110   11.35 g/lb (2.5%)   80-120.  Sulfanitran   85-15   13.6 g/lb (3.0%)   75-125.  Nitromide   90-110   11.35 g/lb (2.5%)   85-115.  Roxarsone   90-110   2.275 g/lb (0.5%)   85-120.  Novoblocin   85-15   17.5 g/lb (3.85%)   80-120.  Pyrantel tartrate   90-110   36 g/lb (7.9%)   85-125.  Robenidine   85-15   17.5 g/lb (3.85%)   80-120.  Pyrantel tartrate   90-110   36 g/lb (7.9%)   80-120.  Roxarsone   90-110   2.275 g/lb (0.5%)   80-120.  Roxarsone   90-110   2.275 g/lb (0.5%)   85-120.  Clopidol   94-106   11.35 g/lb (2.5%)   85-120.  Clopidol   94-106   85-115   5.0 g/lb (1.1%)   70-130.  Bacitracin methylene disalicy late.  Roxarsone   90-110   2.75 g/lb (0.5%)   85-120.  Sulfadimethoxine   90-110   5.675 g/lb (1.25%)   85-115.  Sulfamethazine   85-115   5.0 g/lb (1.10%)   85-115.  Sulfamethazine   85-115   5.0 g/lb (1.10%)   85-115.  Sulfamethazine   85-115   10.0 g/lb (2.2%)   85-125/70-130.  Sulfamethazine   85-115   10.0 g/lb (2.2%)   85-125/70-130.  Sulfanitran   85-115   10.0 g/lb (2.2%)   85-125/70-130.  Sulfanitran   85-115   10.0 g/lb (2.2%)   85-125.  S	Nitarsone		8.5 g/lb (1.87%)	85–120.
Nitromide	Nitromide	90-110	11.35 g/lb (2.5%)	80–120.
Sulfanitran   Roxarsone   90-110   22.75 g/lb (0.5%)   85-120   Roxarsone   90-110   36 g/lb (7.9%)   85-120   Roxarsone   90-110   36 g/lb (7.9%)   80-120   Roxarsone   90-110   36 g/lb (7.9%)   75-125   Roxarsone   90-110   22.75 g/lb (0.5%)   80-120   Roxarsone   90-110   22.75 g/lb (0.5%)   85-120   Roxarsone   90-110   22.75 g/lb (0.5%)   80-120   Roxarsone   90-110   22.75 g/lb (0.5%)   85-120   Roxarsone   90-110   22.75 g/lb (0.5%)   85-115   Roxarsone   90-110   22.75 g/lb (0.5%)   85-115   Roxarsone   90-110   22.75 g/lb (0.5%)   85-115   Roxarsone   90-110   85 g/lb (0.75%)   85-115   Roxarsone   90-110   85 g/lb (0.75%)   85-115   Roxarsone   90-110   Roxar				
Roxarsone				
Novobiocin				
Pyrantel tartrate				
Robentidine				
Roxarsone				
Clopidol Bacitracin methylene disalicy late:   S5-115   S5 0 g/lb (1.1%)   T0-130.   S5-120.   S5.0 g/lb (1.1%)   T5-125.   S5.0 g/lb (1.1%)   T5-125.   S5.0 g/lb (1.2%)   S5-115/75-125.   S5.0 g/lb (1.2%)   S5-115/75-125.   S5.0 g/lb (1.2%)   S5-115/75-125.   S5-115/75-125.   S5.0 g/lb (1.2%)   S5-115/75-125.   S5-125/75-125.   S5-125/75-125.   S5-125/75-125.   S5-125/75-125.   S5-125/75-125.   S5-125/75-125.   S5-125/75-125.   S5-125/75-125				
Bacitracin methylene disalicy-late.   85–115   5.0 g/lb (1.1%)   70–130.				
Roxarsone	Bacitracin methylene disalicy-			
Monensin		90-110	2.275 g/lb (0.5%)	85–120.
Sulfadimethoxine         90–110         5.675 g/lb (1.25%)         85–115/75–125.           Ormetoprim (5/3)         90–110         3.405 g/lb (0.75%)         85–115.           Sulfadimethoxine         90–110         85 g/lb (1.75%)         85–115.           Ormetoprim (5/1)         90–110         17.0 g/lb (3.75%)         85–115.           Sulfamethoxypyridazine         95–105         50.0 g/lb (11.0%)         85–115.           Sulfametrazine         85–115         18.6 g/lb (4.0%)         85–115.           Sulfametrazine         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Penicillin         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–115         10.0 g/lb (2.2%)         80–120.           Sulfanitran         80–115         13.6 g/lb (3.0%)         75–125.				
Ormetoprim (5/3)         90-110         3.405 g/lb (0.75%)         85-115.           Sulfadimethoxine         90-110         37.0 g/lb (0.75%)         85-115.           Ormetoprim (5/1)         90-110         17.0 g/lb (3.75%)         85-115.           Sulfaethoxypyridazine         95-105         50.0 g/lb (11.0%)         85-115.           Sulfamethazine         85-115         18.6 g/lb (4.0%)         85-115.           Sulfamethazine         85-115         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-115         10.0 g/lb (2.2%)         85-125/70-130.           Penicillin         85-115         10.0 g/lb (2.2%)         80-120.           Sulfamethazine         85-115         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-115         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-115         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-115         10.0 g/lb (2.2%)         80-120.           Sulfamethazine         85-115         10.0 g/lb (2.2%)         80-120.           Tylosin         80-120         10.0 g/lb (2.2%)         80-120.           Sulfamitran         85-115         13.6 g/lb (3.0%)         75-125.	Sulfadimethoxine	90-110		85-115/75-125.
Ormetoprim (5/1)         90–110         17.0 g/lb (3.75%)         85–115.           Sulfarethoxypyridazine         95–105         50.0 g/lb (11.0%)         85–115.           Sulfamerazine         85–115         18.6 g/lb (4.0%)         85–115.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Penicillin         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–115         10.0 g/lb (2.2%)         80–120.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Tylosin         80–120         10.0 g/lb (2.2%)         85–125/70–130.           Sulfamitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.		90-110	3.405 g/lb (0.75%)	85–115.
Sulfaethoxypyridazine         95-105         50.0 g/lb (11.0%)         85-115           Sulfamerazine         85-115         18.6 g/lb (4.0%)         85-115           Sulfamethazine         85-115         110.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-115         10.0 g/lb (2.2%)         85-125/70-130.           Penicillin         85-115         10.0 g/lb (2.2%)         85-125/70-130.           Sulfamethazine         85-115         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-115         10.0 g/lb (2.2%)         85-125/70-130.           Sulfamethazine         85-115         10.0 g/lb (2.2%)         85-120.           Chlortetracycline         85-115         10.0 g/lb (2.2%)         85-120.           Sulfamethazine         85-115         10.0 g/lb (2.2%)         80-120.           Tylosin         80-120         10.0 g/lb (2.2%)         80-120.           Sulfamitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxars	Sulfadimethoxine	90–110	85.1 g/lb (18.75%)	85-115/75-125.
Sulfamerazine         85–115         18.6 g/lb (4.0%)         85–115         90–120           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120           Chlortetracycline         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Penicillin         85–115         5.0 g/lb (1.1%)         85–125/70–130.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Tylosin         80–120         10.0 g/lb (2.2%)         80–120.           Sulfanitran         85–115         10.0 g/lb (2.2%)         75–125.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         12.2 g/lb (2.5%)         85–120.           Roxarsone         90–110         12.2 g/lb (2.5%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomi		90-110	17.0 g/lb (3.75%)	85–115.
Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Penicillin         85–115         15.0 g/lb (2.2%)         85–125/70–130.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Tylosin         80–120         10.0 g/lb (2.2%)         75–125.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Roxarsone         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran				85–115.
Chlortetracycline         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Penicillin         85–115         5.0 g/lb (1.1%)         85–125/70–130.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Tylosin         80–120         10.0 g/lb (2.2%)         80–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Roxarsone         90–110         2.715 g/lb (0.60%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         12.2 g/lb (2.5%)         85–120.           Sulfanitran         85–115 </td <td></td> <td></td> <td></td> <td></td>				
Penicillin         85-115         5.0 g/lb (1.1%)         85-125/70-130.           Sulfamethazine         85-115         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-115         10.0 g/lb (2.2%)         85-125/70-130.           Sulfamethazine         85-115         10.0 g/lb (2.2%)         80-120.           Tylosin         80-120         10.0 g/lb (2.2%)         75-125.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Roxarsone         90-110         12.715 g/lb (0.60%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         12.2 g/lb (2.5%)         85-120.           Sulfaquintran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         12.2 g/lb (2.5%)         85-120.           Roxarsone         90-110				
Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–115         10.0 g/lb (2.2%)         85–125/70–130.           Sulfamethazine         85–115         10.0 g/lb (2.2%)         80–120.           Tylosin         80–120         10.0 g/lb (2.2%)         75–125.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–15         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Roxarsone         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–15         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–15         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfaquinoxaline         90–110         11.2 g/lb (2.5%)         85–120.           Sulfaquinoxaline         98–106         12.2 g/lb (2.5%)         85–120.           Sulfathiazole         85–15				
Chlortetracycline         85-115         10.0 g/lb (2.2%)         85-125/70-130.           Sulfamethazine         85-115         10.0 g/lb (2.2%)         80-120.           Tylosin         80-120         10.0 g/lb (2.2%)         75-125.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         11.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         12.2 g/lb (2.5%)         85-120.           Sulfaquinoxaline         98-106         11.2 g/lb (2.5%)         85-115.           Sulfaquinoxaline         98-106         1				
Sulfamethazine         85-115         10.0 g/lb (2.2%)         80-120.           Tylosin         80-120         10.0 g/lb (2.2%)         75-125.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         12.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         12.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         12.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         12.2 g/lb (2.5%)         85-120.           Sulfaquinoxaline         98-106         11.2 g/lb (2.5%)         85-120.           Sulfathiazole         85-115         10.0 g/lb (2.2%)         85-115.           Uhloritracycline         85-125         10.0 g/lb (2.2%)         70-130.           Penicillin         80-120         5.0 g/lb (1				
Tylosin         80–120         10.0 g/lb (2.2%)         75–125.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Roxarsone         90–110         12.715 g/lb (0.60%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Roxarsone         90–110         11.2 g/lb (2.5%)         85–120.           Sulfaquinoxaline         98–106         11.2 g/lb (2.5%)         85–120.           Sulfaquinoxaline         98–106         11.2 g/lb (2.5%)         85–115.           Sulfathiazole         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–125         10.0 g/lb (2.2%)         70–130.           Penicillin         80–120         5.0 g/lb (1.1%)         70–130.           Thiabendazole         94–106         45.4 g/lb (10.0%)         >7% 85–115; <7% 90–110.				
Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         2.715 g/lb (0.60%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         11.2 g/lb (2.5%)         85-120.           Sulfaquinoxaline         90-110         2.27 g/lb (0.5%)         85-120.           Sulfathiazole         98-106         11.2 g/lb (2.5%)         85-120.           Sulfathiazole         85-115         10.0 g/lb (2.5%)         85-120.           Sulfathiazole         85-115         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-125         10.0 g/lb (2.2%)         70-130.           Penicillin         80-120         5.0 g/lb (1.1%)         70-130.           Thiabendazole         94-106         45.4 g/lb (10.0%)         >7% 85-115; <7% 90-110.				
Aklomide     90-110     11.2 g/lb (2.5%)     85-120.       Sulfanitran     85-115     13.6 g/lb (3.0%)     75-125.       Aklomide     90-110     11.2 g/lb (2.5%)     85-120.       Roxarsone     90-110     2.715 g/lb (0.60%)     85-120.       Sulfanitran     85-115     13.6 g/lb (3.0%)     75-125.       Aklomide     90-110     11.2 g/lb (2.5%)     85-120.       Roxarsone     90-110     2.27 g/lb (0.5%)     85-120.       Sulfaquinoxaline     98-106     11.2 g/lb (2.5%)     85-120.       Sulfathiazole     85-115     10.0 g/lb (2.2%)     85-15.       Chlortetracycline     85-15     10.0 g/lb (2.2%)     70-130.       Penicillin     80-120     5.0 g/lb (1.1%)     70-130.       Thiabendazole     94-106     45.4 g/lb (10.0%)     >7% 85-115; <7% 90-110.			10.0 g/lb (2.2%)	
Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         2.715 g/lb (0.60%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         12.2 g/lb (0.5%)         85-120.           Sulfaquinoxaline         98-106         11.2 g/lb (2.5%)         85-115.           Sulfathiazole         85-15         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-125         10.0 g/lb (2.2%)         70-130.           Penicillin         80-120         5.0 g/lb (1.1%)         70-130.           Thiabendazole         94-106         45.4 g/lb (10.0%)         >7% 85-115; <7% 90-110.			11.0 g/ib (3.0%)	
Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Roxarsone         90–110         2.715 g/lb (0.60%)         85–120.           Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Roxarsone         90–110         2.27 g/lb (0.5%)         85–120.           Sulfaquinoxaline         98–106         11.2 g/lb (2.5%)         85–120.           Sulfathiazole         85–15         10.0 g/lb (2.2%)         85–115.           Sulfathiazole         85–15         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–125         10.0 g/lb (2.2%)         70–130.           Penicillin         80–120         5.0 g/lb (1.1%)         70–130.           Thiabendazole         94–106         45.4 g/lb (10.0%)         >7% 85–115; <7% 90–110.				
Roxarsone         90-110         2.715 g/lb (0.60%)         85-120.           Sulfanitran         85-115         13.6 g/lb (3.0%)         75-125.           Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         2.27 g/lb (0.5%)         85-120.           Sulfaquinoxaline         98-106         11.2 g/lb (2.5%)         85-120.           Sulfatquinoxaline         98-106         11.2 g/lb (2.5%)         85-115.           Sulfatquinoxaline         85-115         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-125         10.0 g/lb (2.2%)         70-130.           Penicillin         80-120         5.0 g/lb (1.1%)         70-130.           Thiabendazole         94-106         45.4 g/lb (10.0%)         >7% 85-115; <7% 90-110.				
Sulfanitran         85–115         13.6 g/lb (3.0%)         75–125.           Aklomide         90–110         11.2 g/lb (2.5%)         85–120.           Roxarsone         90–110         2.27 g/lb (0.5%)         85–120.           Sulfaquinoxaline         98–106         11.2 g/lb (2.5%)         85–115.           Sulfathiazole         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–125         10.0 g/lb (2.2%)         70–130.           Penicillin         80–120         5.0 g/lb (1.1%)         70–130.           Thiabendazole         94–106         45.4 g/lb (10.0%)         >7% 85–115; <7% 90–110.				
Aklomide         90-110         11.2 g/lb (2.5%)         85-120.           Roxarsone         90-110         2.27 g/lb (0.5%)         85-120.           Sulfaquinoxaline         98-106         11.2 g/lb (2.5%)         85-115.           Sulfathiazole         85-115         10.0 g/lb (2.2%)         80-120.           Chlortetracycline         85-125         10.0 g/lb (2.2%)         70-130.           Penicillin         80-120         5.0 g/lb (1.1%)         70-130.           Tiabendazole         94-106         45.4 g/lb (10.0%)         >7% 85-115; <7% 90-110.				
Roxarsone   90-110   2.27 g/lb (0.5%)   85-120.				
Sulfaquinoxaline         98–106         11.2 g/lb (2.5%)         85–115.           Sulfathiazole         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–125         10.0 g/lb (2.2%)         70–130.           Penicillin         80–120         5.0 g/lb (1.1%)         70–130.           Thiabendazole         94–106         45.4 g/lb (10.0%)         >7% 85–115; <7% 90–110.				
Sulfathiazole         85–115         10.0 g/lb (2.2%)         80–120.           Chlortetracycline         85–125         10.0g/lb (2.2%)         70–130.           Penicillin         80–120         5.0 g/lb (1.1%)         70–130.           Thiabendazole         94–106         45.4 g/lb (10.0%)         >7% 85–115; <7% 90–110.				
Chlortetracycline         85–125         10.0g/lb (2.2%)         70–130.           Penicillin         80–120         5.0 g/lb (1.1%)         70–130.           Thiabendazole         94–106         45.4 g/lb (10.0%)         >7% 85–115; <7% 90–110.				
Penicillin     80–120     5.0 g/lb (1.1%)     70–130.       Thiabendazole     94–106     45.4 g/lb (10.0%)     >7% 85–115; <7% 90–110.				
Thiabendazole				
Tilmicosin		94-106	45.4 g/lb (10.0%)	
Zilpaterol 90–110   680 g/t (0.075%)   80–110/75–115			18.2 g/lb (4.0%)	85–115.
	Zilpaterol	90–110	680 g/t (0.075%)	80-110/75-115

<sup>&</sup>lt;sup>1</sup>Percent of labeled amount.

<sup>2</sup>Values given represent ranges for either Type B or Type C medicated feeds. For those drugs that have two range limit, the first set is for a Type B medicated feed and the second set is for a Type C medicated feed. These values (ranges) have been assigned in order to provide for the possibility of dilution of a Type B medicated feed with lower assay limits to make a Type C medicated feed.

#### § 558.5

(e) When drugs from both categories are in combination, the Category II requirements will apply to the combination drug product.

[51 FR 7392, Mar. 3, 1986]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §558.4, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

## § 558.5 Requirements for liquid medicated feed.

- (a) What types of liquid medicated feeds are covered by this section? This section covers the following types of liquid medicated feed:
- (1) Type B feed that is intended for further manufacture of other medicated feeds (§558.3(b)(3)) or:
- (2) Type C feed that is intended for the following:
- (i) Further manufacture of another Type C feed, or
- (ii) Top-dressing (adding on top of the usual ration) (§ 558.3(b)(4)).
- (b) How is liquid free-choice medicated feed regulated? Liquid free-choice medicated feed is covered by this section and by §510.455.
- (c) What is required for new animal drugs intended for use in liquid feed? Any new animal drug intended for use in liquid feed must be approved for such use under section 512 of the Federal Food, Drug, and Cosmetic Act (the act) or index listed under section 572 of the act. Such approvals under section 512 of the act must be:
  - (1) An original NADA,
  - (2) A supplemental NADA, or
  - (3) An abbreviated NADA.
- (d) What are the approval requirements under section 512 of the act for new animal drugs intended for use in liquid feed? An approval under section 512 of the act for a new animal drug intended for use in liquid feed must contain the following information:
- (1) Data, or a reference to data in a master file (MF), that shows the relevant ranges of conditions under which the drug will be chemically stable in liquid feed under field use conditions; and
- (2) Data, or a reference to data in an MF, that shows that the drug is physically stable in liquid feed under field conditions; or

- (3) Feed labeling with recirculation or agitation directions as follows:
- (i) For liquid feeds stored in recirculating tank systems: Recirculate immediately prior to use for not less than 10 minutes, moving not less than 1 percent of the tank contents per minute from the bottom of the tank to the top. Recirculate daily as described even when not used.
- (ii) For liquid feeds stored in mechanical, air, or other agitation-type tank systems: Agitate immediately prior to use for not less than 10 minutes, creating a turbulence at the bottom of the tank that is visible at the top. Agitate daily as described even when not used.
- (e) How are chemical and physical stability data to be submitted? The data must be submitted as follows:
  - (1) Directly in the NADA,
  - (2) By a sponsor, or
- (3) To an MF that a sponsor may then reference in its NADA with written consent of the MF holder.
- (f) What will be stated in the published approval for a new animal drug intended for use in liquid feed? The approval of a new animal drug intended for use in liquid feed as published in this subchapter will include the following requirements:
- (1) The formula and/or specifications of the liquid medicated feed, where the owner of this information requests such publication; and/or
- (2) A statement that the approval has been granted for a proprietary formula and/or specifications.
- (g) When is a medicated feed mill license required for the manufacture of a liquid medicated feed? An approved medicated feed mill license is required for the manufacture of the following types of feeds:
- (1) All liquid medicated feeds that contain a Category II drug, and
- (2) Liquid medicated feeds that contain a Category I drug and use a proprietary formula and/or specifications.
- (h) What measures are in place to prevent certain drugs, approved for use in animal feed or drinking water but not in liquid medicated feed, from being diverted